

REMARKS

Status of Claims

Claims 1, 3-20, 30, 32-35, 43, and 44 are pending in this application.

Reconsideration is respectfully requested in view of the following remarks.

Rejection under 35 U.S.C. §112

Claims 19-20 and 34-35 have been rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

“The test as to whether a claim is a proper dependent claim is that it shall include every limitation of the claim from which it depends (35 U.S.C. § 112, fourth paragraph) or in other words that it shall not conceivably be infringed by anything which would not also infringe the basic claim.” MPEP § 608.01(n)(III) (2004).

Claims 19-20 and 34-35 are dependent claims that further define the claimed invention. These claims define the statutory classes under which the claimed invention may be categorized. “The fact that the independent and dependent claims are in different statutory classes does not, in itself, render the latter improper.” *Id.* Claims 19-20 and 34-35 define computer-readable medium and system alternatives of the claimed invention. The Office Action alleges that it is not clear whether claims 19-20 and 34-35 are dependent claims. Claims 19-20 and 34-35 refer back to a base claim and further define the claimed invention. Therefore, claims 19-20 and 34-35 are proper dependent claims. Accordingly, withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. §102

Claims 1, 3-4, 7-10, 13-16, 18-20, 30, 32-35, and 44 stand rejected under 35 U.S.C. § 102(b) as being anticipated by “Modeling Resources Allocation and

Performance Measures in Distributed Computer Networks” (hereinafter “Modeling”).

This rejection is respectfully traversed.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). MPEP § 2131.01 (2004).

With respect to independent claim 1, Modeling fails to disclose “identifying one or more underlying services utilized to execute the computer transaction . . . identifying each resource utilized to provide the one or more services.” The Office Action references Modeling at pages 583-585, FIGS. 1-4 and Tables 1-3 as anticipating the claimed invention. The sections referenced by the Office Action disclose a modeling utility used by network engineers to design distributed networks. Aly E. El-Abd, *Modeling Resources Allocation and Performance Measures in Distributed Networks*, 1995 IEEE 581. The modeling utility enables designers to model a network’s reliability, time delays, distribution of computing power, program or database distribution, allocation of channels, return flow of information, and routing strategies employed in the network. *Id.* § 1. Modeling uses non-decision variables, e.g., database type, program type, channel type, and software costs, etc., to define an objective function $Z = \sum_{i=1}^7 Z_i$. *Id.* § 2.3. The objective function (Z) and the non-decision variables do not determine a monetary service cost associated with one or more services. *Id.* § 2.3. Modeling minimizes the objective function (Z), total cost, when determining an optimal network design. *Id.* §§ 2.1-5.2. Additionally, Modeling incorporates constraints such as network reliability,

database availability and time delay into the objective function (Z) to determine the feasibility of the optimal network design. *Id.* § 4.2.

Modeling does not disclose identifying one or more **underlying services** utilized to execute the computer transaction. Modeling further does not disclose identifying each resource utilized to provide the one or more services. Unlike Modeling, the present invention determines the monetary cost of a computer transaction as a function, summation, of the cost associated with the utilized **services**. Accordingly, for at least the reasons set forth above, claim 1 is allowable over the prior art.

Claim 3 depends from claim 1 and further defines novel features of the claimed invention. Accordingly, claim 3 is allowable by virtue of its dependence on claim 1. Additionally, claim 3 is allowable because Modeling fails to disclose "calculating the equipment cost as a percentage of an overall equipment cost for equipment utilized to execute the transaction." The Office Action references page 582-586, FIGS. 1-4 and Tables 1-3 as anticipating the claimed invention. The sections referenced by the Office Action discuss practical applications of the modeling utility. *Id.* §§ 2-5. Modeling discloses applying reliability and availability constraints and various communication, database, rental and computer costs to the objective function (Z) when determining an optimal network design for different case studies. *Id.* §§ 4-5. One practical application discloses a bank, with four sites, may incur costs based on various factors, e.g., database and program types and capacities. *Id.* § 4. The practical application estimates the costs of various non-decision variables, e.g., communication, rental, computer, and database costs, and defines the constraints, e.g., network reliability and database reliability. *Id.* § 4.1. The practical application applies the constraints and costs to the objective function

(Z) to determine an optimal network design and routing strategy that minimizes the total cost, Z, for the bank. *Id.* § 4.2.

Modeling does not disclose calculating equipment cost as a percentage of an overall equipment cost for equipment utilized to execute a computer transaction. Unlike Modeling, the present invention determines equipment cost as a **percentage** of an overall equipment cost.

Furthermore, the Office Action has incorrectly transcribed the monetary service providing costs of claims 3 and 4. The Office Action incorrectly states, with respect to claim 3, that the “monetary service providing cost includes a software cost and the determining step includes calculating the software cost as a percentage of an overall software cost”; however, the claimed invention, with respect to claim 3, states that “the monetary service providing cost includes an equipment cost and wherein the determining step includes calculating the equipment cost as a percentage of an overall equipment cost for equipment utilized to execute the transaction. Claim 3 defines the claimed monetary service providing cost explicitly in terms of equipments costs. The Office Action has transcribed equipment costs for software costs. Software costs do not anticipate equipment costs because the costs incurred by software differs from equipment related costs, accordingly, the overall equipment and software costs differ. A similar mistake is made with respect to claim 4, where the Office Action has transcribed software costs for equipment costs. Accordingly, for at least the reasons set forth above, claim 3 is allowable over the prior art.

Claim 4 depends from claim 3 and further defines novel features of the claimed invention. Accordingly, for at least the reasons set forth above, claim 4 is allowable over the prior art.

Claim 7 depends from claim 1 and further defines novel features of the claimed invention. Accordingly, claim 7 is allowable by virtue of its dependence on claim 1. Additionally, claim 7 is allowable because Modeling fails to disclose “determining a cost for a level of quality of the one or more services utilized to execute the transaction.” The Office Action references FIGS. 1-4 and Tables 1-3 as anticipating the claimed invention. FIGS. 1-4 and Tables 1-3 refer to different optimal designs that are generated when non-decision variables and constraints relating to communication costs are varied. *Id.* §§ 4-5. A network engineer using the modeling utility is able to determine the robustness of a network design when unforeseen costs, such as increased query traffic or changed capacities and time delays, are introduced to the network by varying the non-decision variables. *Id.* The modeling utility applies the changed variables and constraints to the objective function (Z) and determines the overall cost for new optimal network designs. *Id.* § 2.3.

Modeling does not disclose determining a cost for a level of quality of the one or more services utilized to execute the transaction. Moreover, as indicated above, the modeling utility does not identify the underlying services utilized by a computer transaction. Therefore, the cost for a level of quality for one or more **services** is not determined by the modeling utility. Accordingly, for at least the reasons set forth above, claim 7 is allowable over the prior art.

Claims 8-10 and 13-15 depend from claim 7 and further define novel features of the claimed invention. Accordingly, for at least the reasons set forth above, claims 8-10 and 13-15 are allowable over the prior art.

Claim 18 depends from claim 1 and further defines novel features of the claimed invention. Accordingly, claim 18 is allowable by virtue of its dependence on claim 1. Additionally, claim 18 is allowable because Modeling fails to disclose “combining the monetary service providing cost and the quality cost to define the monetary computer transaction cost.” The Office Action references FIGS. 1-4 and Tables 1-3 as anticipating the claimed invention. As indicated above, FIGS. 1-4 and Tables 1-3 refer to different optimal designs that are generated when the non-decision variables and constraints of the objective function (Z) are varied. Modeling uses the objective function (Z) to minimize the overall cost when determining which network design satisfies the network constraints. *Id.* §§ 2-4.

Modeling does not disclose **combining** the monetary service providing cost and the quality cost to define the monetary computer **transaction cost**. Unlike Modeling, the present invention determines the cost of a computer transaction as a function, combination, of the service providing cost and the quality cost. Accordingly, for at least the reasons set forth above, claim 18 is allowable over the prior art.

Claims 19 and 20 depend from claim 1 and further define novel features of the claimed invention. Accordingly, for at least the reasons set forth above, claims 19 and 20 are allowable by virtue of their dependence on claim 1.

With respect to independent claim 30, Modeling fails to disclose “determining, by the one or more service processes, a monetary service provider cost associated with the

execution of the transaction as a function of the services utilized to execute the transaction, wherein determining the monetary service provider cost comprises identifying each resource utilized to provide the service.” The Office Action references pages 583-585, FIGS. 1-4 and Tables 1-3 as anticipating the claimed invention. Modeling discloses non-decision variables represent network elements and network design costs. *Id.* § 2.2.1. Modeling uses non-decision variables and constraints to determine a new optimal network design and routing strategy and the total cost of the optimal network design. *Id.* §§ 2-5.

Modeling does not disclose determining, by the one or more service processes, a monetary service provider cost associated with the execution of a computer transaction as a function of once or more services utilized to execute the computer transaction, wherein determining the monetary service provider cost comprises identifying each resource utilized to provide the one or more services. Unlike Modeling, the present invention determines the cost of a computer transaction as a **function of the services utilized**. Accordingly, for at least the reasons set forth above, claim 30 is allowable over the prior art.

Claim 32 depends from claim 30 and further defines novel features of the claimed invention. Accordingly, claim 32 is allowable by virtue of its dependence on claim 30. Additionally, claim 32 is allowable because Modeling fails to disclose “determining a quality cost of the one or more services associated with the execution of the transaction.” The Office Action references pages 583-585, FIGS. 1-4 and Tables 1-3 as anticipating the claimed invention. Modeling discloses time delay constraints are varied to a

determine new optimal design and routing strategy and the total cost of the new design.

Id. § 5.2.

Modeling does not disclose determining a quality cost of one or more services associated with the execution of a computer transaction. Furthermore, as indicated above the modeling utility does not identify the underlying services utilized by a computer transaction. Therefore, the quality cost for the one or more **services** is not determined by the modeling utility. Accordingly, for at least the reasons set forth above, claim 32 is allowable over the prior art.

Claim 33 depends from claim 32 and further defines novel features of the claimed invention. Accordingly, for at least the reasons set forth above, claim 33 is allowable by virtue of its dependence on claim 32.

Claims 34 and 35 depend from claim 30 and further define novel features of the claimed invention. Accordingly, for at least the reasons set forth above, claims 34 and 35 are allowable by virtue of their dependence on claim 30.

With respect to independent claim 44, Modeling does not disclose “a service identification component for identifying any services necessary for conducting the computer transaction; a resource identification component for identifying resources utilized in providing each service.” The Office Action references FIGS. 1-4 and Tables 1-3 as anticipating the claimed invention. As mentioned above, Modeling discloses utilizing the objective function (Z) to determine an optimal network design and routing strategy and the total cost for the optimal network design. *Id.* §§ 2-4.

Modeling does not disclose a service identification component for identifying any services necessary for conducting a computer transaction; a resource identification

component for identifying resources utilized in providing each service. Unlike Modeling, the present invention calculates a monetary cost of a **computer transaction** by identifying the **services** and the cost of resources utilized to provide the services. Accordingly, for at least the reasons set forth above, claim 44 is allowable over the prior art.

Rejections under 35 U.S.C. §103

Claims 5-6, 11-12, 16-17, and 43 have been rejected under 35 U.S.C. §103 over Modeling. This rejection is respectfully traversed.

“To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure.” *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP 706.02(j).

Claim 5 depends from claim 4 and further defines novel features of the claimed invention. Additionally, claim 5 is allowable because the invention is non-obvious over Modeling. Modeling fails to disclose each claimed feature and the Office Action fails to provide any reference that includes the features that Modeling lacks. Furthermore, the Office Action fails to supply any suggestion or any motivation for modifying Modeling to include the claimed features that Modeling lacks.

Modeling does not disclose or suggest “personnel is a utilized resource and the monetary service providing cost includes a personnel cost and wherein the determining step includes calculating the personnel cost as a percentage of an overall personnel cost

for maintaining the software and the equipment utilized to execute the transaction.” As discussed above, Modeling discloses a utility that enables a network engineer to design optimal networks. *Id.* §§ 4.1-.3. Modeling further discloses costs include software, rental, fixed, variable and communication costs and are defined cost per unit time. *Id.* Modeling applies the costs and constraints to an objective function (Z) to determine an optimal network design and routing strategy and the total cost for the optimal network design. *Id.*

Modeling does not disclose or suggest calculating personnel cost as a percentage of an overall personnel cost for **maintaining the software and the equipment utilized** to execute the transaction. Accordingly, for at least the reasons set forth above, claim 5 is allowable over the prior art.

Claim 6 depends from claim 5 and further defines novel features of the claimed invention. Accordingly, claim 6 is allowable by virtue of its dependence on claim 5. Additionally, assuming that the rejection is a proper § 103 rejection, claim 6 is allowable because the invention is non-obvious over Modeling. Modeling does not disclose or suggest that a “facility is a utilized resource and the monetary service providing cost includes a facility cost and wherein the determining step includes calculating the facility cost as a percentage of an overall facility cost for supporting and housing the equipment and personnel utilized to execute the transaction.” As discussed above, the costs considered by Modeling are limited to design costs, such as software, rental, fixed, variable and communication costs. *Id.* § 2.2.1.

Modeling does not disclose or suggest calculating a facility cost as a **percentage** of an overall facility cost for supporting and housing the equipment and personnel

utilized to execute the transaction. Accordingly, for at least the reasons set forth above, claim 6 is allowable over the prior art.

Claims 11-12 and 16-17 depend from claim 1 and further define novel features of the claimed invention. Claims 11-12 and 16-17 recite limitations similar to those of claims 5-6. Accordingly, for at least the reasons set forth above with respect to claims 5-6, claims 11-12 and 16-17 are allowable over the prior art.

Claim 43 depends from claim 1 and further defines novel features of the claimed invention. Accordingly, claim 43 is allowable by virtue of its dependence on claim 1. Additionally, assuming that the rejection is a proper § 103 rejection, claim 43 is allowable because the invention is non-obvious over Modeling. Modeling does not disclose "identifying a fixed cost resource and attributing a portion of a total monetary service providing cost for the fixed cost resource to the computer transaction, and identifying variable cost resources and determining a portion of the variable cost resources required to conduct the transaction." The Office Action refers to Modeling's cost calculating method as suggesting the variable cost resources and the fixed cost resources. *Id.* §§ 2.2.1 and 4.1. The cost calculating method utilizes the objective function (Z) to determine an optimal network design and routing strategy and the total cost for the optimal network design. *Id.* § 2.1-.3. Modeling further discloses the objective function (Z) uses fixed and variable costs that refer to the installation of a channel. *Id.*

Modeling does not disclose or suggest identifying a fixed cost resource and attributing a portion of a total monetary service providing cost for the fixed cost resource to the **computer transaction**, and identifying variable cost resources and determining a

portion of the variable cost resources required to conduct the computer transaction. Unlike Modeling, the present invention uses the fixed and variable costs to calculate the **cost of executing a computer transaction**. Accordingly, for at least the reasons set forth above, claim 43 is allowable over the prior art.

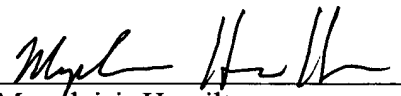
To make a prima facie case of obviousness, the references must teach or suggest all the claim limitations. Modeling fails to teach or suggest the limitations of claims 5-6, 11-12, 16-17, and 43. Therefore, for at least the reasons set forth above, the §103 rejection should be withdrawn.

CONCLUSION

As set forth above, applicants respectfully submit that all pending claims are in condition for allowance. Applicants respectfully request that this application be allowed and passed to issue. Should, however, any issues remain prior to issuance of this application, the Examiner is urged to contact the undersigned to resolve the same. The Commissioner is hereby authorized to charge any additional amount required, or credit any overpayment, to Deposit Account No. 19-2112.

Respectfully submitted,

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